

CLAIMS

What is claimed is:

- Sub A1
- 5
1. A method of rendering a biological specimen suitable for histological staining comprising the steps of:
 - (a) dispensing onto a biological specimen an oxidizer; and
 - (b) dispensing onto the biological specimen a source of hydrogen ions, thereby combining the oxidizer with hydrogen ions, wherein the combination of oxidizer and hydrogen ions contacts the biological specimen and renders the specimen suitable for subsequent staining.
 - 10 2. The method of Claim 1 wherein the histological staining is performed by an automated histological staining instrument.
 - Sub B2
 3. The method of Claim 1 wherein the histological staining detects or characterizes microorganisms.
 4. The method of Claim 1 wherein the histological staining process includes a
 - 15 Grocott's modification of Gomori's methenamine silver method.
 5. The method of Claim 1 wherein the source of hydrogen ions is selected from the group consisting of perchloric acid, perbromic acid and nitric acid.
 6. The method of Claim 5 wherein the source of hydrogen ions is perchloric acid.
 7. The method of Claim 1 wherein the oxidizer is a source of chromate ions.

8. The method of Claim 7 wherein the source of chromate ions is selected from the group consisting of sodium chromate and potassium chromate.

9. The method of Claim 1 wherein the oxidier and hydrogen ions form chromic acid in contact with the biological specimen.

Sub
A2⁵

10. A method for detecting the presence or absence of microorganisms in a biological specimen in an automated histological staining process, comprising the steps of:

- (a) treating the biological specimen with a staining reagent to render the biological specimen suitable for subsequent staining wherein the treatment comprises dispensing from separate liquid dispensers, onto the biological specimen, a source of chromate ions and a source of hydrogen ions thereby combining chromate ions and hydrogen ions wherein the combination of chromate ions and hydrogen ions contact the biological specimen and renders the biological specimen suitable for subsequent staining;
- (b) washing the combination of chromate ions and hydrogen ions from the specimen;
- (c) staining the washed specimen with a histological stain suitable for the detection of microorganisms; and,
- (d) detecting the presence or absence of microorganisms in the specimen.

11. The method of Claim 10 wherein the automated histological staining process includes a Grocott's modification of Gomori's methenamine silver method.

12. The method of Claim 10 wherein the source of hydrogen ions is selected from the group consisting of perchloric acid, perbromic acid and nitric acid.

Sub B 4/25

by con?

13. The method of Claim 12 wherein the source of hydrogen ions is perchloric acid.

14. The method of Claim 10 wherein the source of chromate ions is selected from the group consisting of sodium chromate and potassium chromate.

5 15. The method of Claim 10 wherein the chromate ions and hydrogen ions form chromic acid in contact with the biological specimen.

Sub
A3

16. A method of rendering a biological specimen suitable for staining in an automated histological staining process comprising the steps of:

- 10 (a) combining a source of chromate ions and a source of hydrogen ions; and
(b) contacting the combination of (a) with the biological specimen, thereby rendering the biological specimen suitable for staining.

17. The method of Claim 16 wherein the chromate ions and hydrogen ions form chromic acid.

Add B6

add C1